A NOTE ON THE SPOTTED-WINGED GROSBEAK *MYCEROBAS MELANOXANTHUS* (HODGS.).

By

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I have always regarded the Spotted-winged Grosbeak as a very rare bird and had never met with it personally until this year (1922) at Dharmsala. As it appeared here in some numbers in the latter part of the winter and I received reports from both Simla and Raniket of similar incursions I am tempted to write and enquire whether any of our members have met with the bird this year and whether they can give any evidence for or against the theory that it is one of those species which appears erratically in certain years outside its usual limits?

To begin with examining the question of its distribution. According to the Fauna, B.I. Birds, ii., 202, it is found in the Himalayas from the Hazara Country to Sikkim at considerable elevations, and in Manipur. Hartert (Vog. Pal. Fauna, I., 60) adds to this the mountains of Szechwan in W. China. This however gives no hint as to the status or manner of distribution of the bird in this area.

The published records do not throw much light on these points. Jerdon's account (B.I., II., 386) in somewhat vague :—

"Has been found both in the North-West and in the South-East Himalaya, but more common in the latter region and chiefly at considerable elevations. In winter a few descend to the lower region, in which season I got one or two pairs near Darjeeling, and Hodgson obtained it in Nepal, where he says they belong to the Northern region, whence they wander into the central region, even in summer, in search of ripe stony fruits. According to Capt. Hutton this species 'comes to Mussoorie in flocks during March and April, and remains as long as it can find plenty of cherry stones to crack, after which it disappears.'"

The Manipur locality is based on Hume's record (S.F., xi., 286) that he obtained a female from a flock of about a dozen individuals on the 29th May when descending from the Limatol range into the Limata Valley: while Godwin-Austen received specimens from Koonchungbun further north in Manipur. There is a specimen from Kanpetlet 6,000 ft., Mt. Victoria, Burma (18 Nov. 1905) in the collection of the Society at Bombay.

For the North-Western Himalayas there are more records. Commencing from the west there is a specimen from Thandiani and another from Abbottabad (no dates) in the Hume collection.

At Dunga Gali the nest was taken by Captain Skinner (Jour. B.N.H.S., xviii., 907) on 22nd June 1908 and as there appears to be no other record of the breeding of this species the account may well be quoted. "The nest was in a Yew tree about 15 feet from the ground on the side of a steep hill, built on a branch towards the end, composed of a base or platform of twigs from the Silver Fir (*Abies webbiana*) on the top of which was a cup-shaped nest of moss lined with maidenhair stems and fine roots; diameter of nest $3\frac{1}{2}''$, depth $1\frac{3}{4}''$ internal measurements. The outside of the nest was lined with some green stuff which remained green and did not dry up, which aided its concealment. . . . . there was a full clutch of 3 eggs which are marked in the same way as that of *Pycnorhamphus icteroides* with streaks and blotches, only the markings are decidedly more reddish brown: the ground colour of the eggs is light green: the eggs were quite fresh. Size $1{\cdot}08\times0{\cdot}8$; $1{\cdot}07\times{\cdot}84$; $1{\cdot}07\times{\cdot}8$ ins. The nest was found building by my searcher about 10 days ago when we were working in nullah, height 8,000 ft."

Major Magrath has also recorded in the Journal that he was present at the taking of this nest and he goes on to say:—"This Grosbeak was rare though on the 23rd June I came across in one spot in Dunga Gali quite a lot of them."

Of Kashmir, Ward writes (Jour. B.N.H.S., xvii, p. 484) that he has not yet secured a specimen though the species has been recorded from various parts. These records however I have failed to trace.

A specimen from Chamba (no date) from Colonel C. H. T. Marshall is in the Hume collection.

At Simla, according to Beavan (Ibis, 1867, 141), this Grosbeak is apparently far from uncommon ; the Hume collection contains an undated specimen each from Simla and Koteghar, and the Tweedale collection contains a male (August 1876) and a female (June 1876) from Simla. Yet it is significant that Dodsworth never met the bird at Simla, and A. E. Jones never found it there in 12 years until the visitation mentioned below.

B. B. Osmaston records (Jour. B.N.H.S., xxviii., 151) :—

" I have only met with this bird on three occasions, and all three places where it was seen were in Upper Gahrwal. On two of the three occasions I came on a flock of these birds feeding on the fruit of ' Kaphal ' (*Myrica nagi*) the stones of which are cracked and the kernel extracted."

A specimen from Gharwal (24 Jan. 1905) is in the Society's collection.

Andrew Anderson obtained the species in Kumaon in June 1875.

The above records either imply that the bird is very erratic in the manner of its appearance in the localities that it visits or that it has been greatly overlooked of late years. But in the early part of this year it would seen to have visited the outer N.W. Himalayas in some numbers judging from the three experiences now to be recorded.

At Dharmsala it was met with by me as follows. In every instance about the wooded nallah which runs from the Depot Bazar between the Post Office and the Gazetted Officers' Residences at an elevation of 4,000 to 4,500 ft. :—

January 7.—A party of 5 in a wild cherry tree, feeding on the kernels.
January 12.—A party of nine resting on the top of a tall tree.
January 17.—A party of nine feeding on wild cherries (N.B.—One of the previous nine had been shot so this was not necessarily the same party).
Januray 22.—A single male calling at the top of an " Oui " tree.
January 25.—A flock.
January 29.—A flock in a ' Khirk ' tree in my garden.
January 30.—A flock in a " Oui " tree in my garden.
February 8.—A party.

A series of 10 specimens was collected from this visitation. How much later they stayed I am unable to say owing to the Royal Visit removing me to Lahore on duty.

It is worth remarking that about the same time a number of *P. icteroides* appeared in Dharmsala, whereas neither species of Grosbeak had been met in the station the previous winter.

At Ranikhet they appeared about the same time. Mr. F. Field (who kindly sent me a nice male) writes as follows in a letter, dated 26th March 1922 :—

" These birds came here about the 19th February and fed on the wild cherry, cracking the stones quite easily ; curious to relate in the first two lots I saw there was only one her bird among a lot of over a dozen birds each time. Later I saw several hens and again a week ago they were evidently pairing off as a cock and hen went off together. I have not seen them now for some days. They were in flocks of 10 to 15 or 20 and frequented the wild cherry trees."

Whether at the same time they appeared in Simla I have no information : they were there however in all probability, as almost as soon as he went up from the plains Mr. A. E. Jones met with a flock of about 40 in the glen below Viceregal lodge on 2nd April. He met with them again about the same place on 14th April, if anything in larger numbers.

As indicated by the above records, this Grosbeak, in winter at any rate, is highly gregarious and occurs in small parties or large flocks. In disposition it is very sluggish and frequently very tame and confiding, allowing a close approach. As its favourite food is the kernel of the stone of the wild cherry it tends to frequent those localities where this tree is most abundant. While feeding, the presence of a flock may be detected by the sound of the incessant splitting of the cherry stones, similar to the noise made by a flock of parrots feeding on the seeds of the Sheesham tree. The wild cherry is normally a small tree, often growing in fairly thick jungle, so, while feeding the Grosbeak, is naturally easy to secure, but otherwise it is fond of perching at the tops of high trees and is then difficult to observe. When disturbed it usually flies high in the air, but the flight is somewhat hesitating and there is a tendency to circle round and return to the locality from which the birds have been disturbed, as if they were reluctant to move away.

The species has a variety of calls; the most familiar is a sort of rattling note, to be rendered by the syllables "Charraruk," somewhat similar to the distant call of a Magpie or Field-fare and easily recognised when once known. This is usually uttered in flight but may also be heard during feeding; it may be fairly well represented by shaking an ordinary match box containing a few matches. There is a pleasing mellow and somewhat oriole-like whistle resembling the syllables 'Tyop-tiu' or 'Tyop-tyo,' and a variety of parrot like notes.

There is also a remarkably human note like the exclamation 'an' when pronounced with an ascending inflection.

Magrath states that the berries of *Viburnum fœtens* are eaten in addition to the fruit of the wild cherry (*Prunus padus*). I have only experience of the latter being eaten by the bird; the actual pulp of the cherry is disregarded, the stone being neatly divided at the junction of the valves and the kernel extracted. Where the birds have been feeding the ground beneath the trees is littered with the open shells.

To work the huge jaws and to supply the necessary strength for the cracking of the stones there is extraordinary muscular development. The whole of the cranium from a line between the central point of the upper edge of the orbits is encased in a sheet of fleshy muscle, so that on removal of the skin the bone is not visible as in other Passerine birds; this sheet of muscle ranges from half a millimetre anteriorly to two millimetres posteriorly in thickness. To support it there is a very deep groove behind the orbit and the posterior edge of these cavities is produced outwards in a deep flange such as I have seen in no other bird's skull. There is also a marked bony ridge along the central axis of the cranium. The muscles run from this central ridge straight down on both sides, so that the skull stripped of the skin offers a rough resemblance to the back view of a man's head with the hair neatly parted all down the middle. The tongue is hard and horny, a rough cylinder with the tip obliquely scooped out to a point on the lower edge.

The orbit is comparatively small and the whole of the palate and cavities behind the eye are well filled in with bone and muscle.

I have examined 18 specimens of this Grosbeak including the choice series in Mr. A. E. Jones' collection. The following descriptions of the plumages may be of use.

Adult Male (*winter and summer*).—The whole upper plumage, sides of the head and neck, chin, throat, and thighs slaty black, each feather with an ashy margin more or less distinct, and a concealed white base; in some specimens the white bases of feathers on the mantle are tinged with yellow; wings black, the feathers margined with ashy, the inner greater coverts and tertiaries with an elongated oval pale yellow spot on the outer web near the tip, occasionally a few of the inner median coverts with whitish tips; a white spot at the base of a variable number of the primaries, but never on the first and second; the secon-

daries and inner primaries with a short white margin near the tip of the outer web; tail black; lower plumage deep yellow, with occasionally a few lanceolate black spots on the lower flanks; axillaries black tipped with yellow.

There is no spring moult; period of the autumn moult not known, but the Mt. Victoria specimen of 18 November is moulting the remiges.

Adult female (*winter and summer*).—Upper plumage black, the feathers edged with dull yellowish green and with concealed whitish bases; the feathers of the head, hind neck and mantle much marked with yellow, the forehead and superciliary streaks being almost pure yellow and the centre of the mantle almost equally black and yellow; a broad black band from the lores through the eye to the ear coverts; a black patch on the cheeks; sides of the face and neck bright yellow streaked with black; the whole of the lower surface bright yellow, marked heavily except on the chin, throat, lower abdomen and under tail coverts, with black oval spots; thighs mixed yellow and black; wing black, all the feathers margined with pale yellowish or greenish white, these margins being broadest on both webs of the median covers, and at the tips of the outer webs of the greater covers, tertiaries, secondaries, and inner primaries; a white spot at the base of a variable number of the primaries, but never on the first; tail black, outer webs faintly margined with greenish; axillaries mixed black and yellow.

Moults presumably as in male.

Juvenile plumage unknown.

1*st Winter Male and Female.*—Exactly similar to the adult female but that the yellow in the plumage is almost entirely replaced by creamy white, except on the lower abdomen and under tail coverts. There is a much smaller proportion of black in the feathers of the crown and nape, the superciliary streaks being therefore less noticeable.

The moults are unknown.

Soft parts.—(Both sexes, adult and first winter). Iris dark brown; orbicular plumbeous; mouth blackish slaty horn; bill bluish grey; culmen tip and commissure blackish grey; legs dull bluish slate; claws dusky.

Structure.—1st primary minute and hidden; 2nd, 3rd and 4th primaries subequal, the 3rd being longest, 5th primary 4-6 mm. shorter than the 4th, 6th primary 10-13 mm. shorter than the 5th.

Tail slightly forked, central feathers about 5 mm. shorter than outermost feathers.

Measurements in millemetres :—

	Bill from skull.	Bill from feathers.	Wing.	Tail.	Tarsus.
6 Adult Males ..	28–32	22·5–26·5	126·5-134·5	75·5–82·5	22–25·5
7 Adult Females ..	28–30·5	22·5–26·5	126–134·5	72·5–77	22·5–24
1 First Winter Male .	28	22	125·5	70	22·5
1 First Winter Female	28·5	23·5	126·5	75·5	22·5

It is possible that the species should be divided like most other Himalayan birds, into an eastern and a western race, but I have been unable to examine sufficient birds from the Eastern Himalayas to be positive on this point.